

saccharidic non-cross-linked polymer, and
at least one of the non-saccharidic polysaccharides and
polymers having the same non-cross-linked copolymer, is
polycarboxylic.

Claim 2 (amended) A copolymer of claim 1, wherein the
polysaccharide is non-polycarboxylic.

Claim 3 (amended) A copolymer of claim 1 wherein the non-
polycarboxylic polysaccharide is selected from the group consisting
of agarose, agarpectin, amylose, amylopectin, arabinogalactan,
carrageenans, cellulose, methylcellulose, chitosan, dextran,
keratan sulfate, fucans and fucoidans, tragacanth, arabic, locust
bean, guar gums and pullulan.

Claim 4 (amended) A copolymer of claim 1 wherein the
polysaccharide is polycarboxylic.

Claim 5 (amended) A copolymer of claim 4 wherein the
polycarboxylic polysaccharide is selected from the group consisting
of glycosaminoglycans, pectinic and alginic acid.

Claim 6 (amended) A copolymer of claim 4 wherein the
polycarboxylic polysaccharide is glycosaminoglycane selected from
the group consisting of hyaluronic acid, chondroitin sulfate,
heparin, dermatan sulfate and heparan sulfate.

Claim 7 (amended) A copolymer of claim 1 wherein the non-saccharidic polymer is non-polycarboxylic.

Claim 8 (amended) A copolymer of claim 7 wherein the non-polycarboxylic non-saccharidic polymer is selected from the group consisting of poly(vinyl acetate), poly(vinyl alcohol), poly(acrylic esters), poly(methacrylic esters), poly(methacrylamides) and poly(acrylamides).

Claim 9 (amended) A copolymer of claim 1 wherein the non-saccharidic polymer is polycarboxylic.

Claim 10 (amended) A copolymer of claim 9 wherein the non-saccharidic polymer is a polycarboxylic acrylic polymer.

Claim 11 (amended) A copolymer of claim 10 wherein the polycarboxylic acrylic polymer is poly(acrylic acid) or poly(methacrylic acid).

Claim 12 (amended) A copolymer of claim 1 wherein the cross-linking agent is selected from the group consisting of diamines, natural and synthetic amino acids and polyamines.

Claim 13 (amended) A copolymer of claim 12 wherein the cross-linking agent is a diamine.

100-000000-032602

Claim 14 (amended) A copolymer of claim 1 wherein the polysaccharide is degradable by the microbial flora of the colon.

Claim 15 (amended) A copolymer of claim 14 wherein the polysaccharide is selected from the group consisting of chondroitin sulfate, hyaluronic acid, pectinic acid, heparin, dextran, chitosan, amylose, pectin, alginates and xanthan.

Claim 16 (amended) A copolymer of claim 15 wherein the polysaccharide is chondroitin sulfate, the other said non-saccharidic polymer is poly(acrylic acid) or poly(methacrylic acid), and the cross-linking agent is hexanediamine.

Claim 17 (amended) A process for the preparation of cross-linked copolymers of claim 1 comprising reacting said non-cross-linked polycarboxylic copolymers in an aqueous medium in the presence of an activator of said cross-linking agent.

Claim 18 (amended) The process of claim 17 wherein the activator is selected from the group consisting of carbodiimides, quinoline derivatives and mixed anhydrides.

Claim 19 (amended) A process for the preparation of non-cross-linked copolymers of claim 1, comprising grafting the monomer of the non-saccharidic polymer onto the polysaccharide in an aqueous medium, under an inert atmosphere and in the presence of a

02
08
09
287-032602

catalyst, which monomer will then polymerize under these reaction conditions.

12
com
Claim 20 (amended) A pharmaceutical composition containing at least one active ingredient and, as an inert support or excipient, at least one cross-linked copolymer of claim 1.

Claim 21 (amended) A pharmaceutical composition containing at least one active ingredient and, as an inert support or excipient, at least one copolymer of claim 14.

10089287-032602
Cancel claims 22 to 27 and add the following claims.

28. A method of treating a disease of the colon in warm-blooded animals comprising administering to warm-blooded animals in need thereof an effective amount of an active colon treating ingredient with an excipient of at least one copolymer of claim 1 for sustained release.

13
29. The method of claim 28 wherein the active ingredient is absorbed at the colon level.

30. The method of claim 30 wherein the active ingredient is released in the upper parts of the digestive tract.